

STIC-Biotech/ChemLib

104951

From: Portner, Ginny  
Sent: Tuesday, September 30, 2003 3:55 PM  
To: STIC-Biotech/ChemLib  
Subject: 09/662,812  
Importance: High

Please Interference search seq id no. 1 and 2. thanks, Ginny

*Ginny Portner*  
CM1, Art Unit 1645  
Room 7e13  
Mail box 7e12  
(703) 308-7543

*Search Done by Mary Jane  
Ruhl  
005-1153  
Thurs  
Oct 6, 2003  
Mary*

Searcher: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Location: \_\_\_\_\_  
Date Picked Up: \_\_\_\_\_  
Date Completed: \_\_\_\_\_  
Searcher Prep/Review: \_\_\_\_\_  
Clerical: \_\_\_\_\_  
Online time: \_\_\_\_\_

TYPE OF SEARCH:  
NA Sequences: \_\_\_\_\_  
AA Sequences: \_\_\_\_\_  
Structures: \_\_\_\_\_  
Bibliographic: \_\_\_\_\_  
Litigation: \_\_\_\_\_  
Full text: \_\_\_\_\_  
Patent Family: \_\_\_\_\_  
Other: \_\_\_\_\_

VENDOR/COST (where applic.)  
STN: \_\_\_\_\_  
DIALOG: \_\_\_\_\_  
Questel/Orbit: \_\_\_\_\_  
DRLink: \_\_\_\_\_  
Lexis/Nexis: \_\_\_\_\_  
Sequence Sys.: \_\_\_\_\_  
WWW/Internet: \_\_\_\_\_  
Other (specify): \_\_\_\_\_

Art Unit: 1641

SYSTEM:OS - DIALOG OneSearch

File 155:MEDLINE(R) 1966-2000/Jul W2

(c) format only 2000 Dialog Corporation

\*File 155: MEDLINE has been reloaded. Accession numbers changed.

File 154:MEDLINE(R) 1993-2000/Jul W2

(c) format only 2000 Dialog Corporation

\*File 154: MEDLINE has been reloaded. Accession numbers changed.

File 73:EMBASE 1974-2000/Apr W4

(c) 2000 Elsevier Science B.V.

\*File 73: New drug links added. See Help News73.

File 5:Biosis Previews(R) 1969-2000/May W4

(c) 2000 BIOSIS

File 144:Pascal 1973-2000/May W2

(c) 2000 INIST/CNRS

\*File 144: This file is updating weekly now.

File 349:PCT Fulltext 1983-2000/UB=, UT=20000504

(c) 2000 WIPO/MicroPatent

File 156:Toxline(R) 1965-2000/Apr

(c) format only 2000 The Dialog Corporation

File 654:US Pat.Full. 1990-2000/May 23

(c) format only 2000 The Dialog Corp.

\*File 654: Reassignment data current through 12/06/1999 recordings.

Due to recent processing problems, the SORT command is not working.

File 172:EMBASE Alert 2000/Apr W5

(c) 2000 Elsevier Science B.V.

File 151:HealthSTAR 1975-2000/Jun

(c) format only 2000 The Dialog Corporation

\*File 151: HealthSTAR will be reloaded. Accession numbers will change.

File 51:Food Sci.&Tech.Abs 1969-2000/Jun

(c) 2000 FSTA IFIS Publishing

File 357:Derwent Biotechnology Abs 1982-2000/May B2

(c) 2000 Derwent Publ Ltd

File 348:European Patents 1978-2000/May W01

(c) 2000 European Patent Office

\*File 348: \*\* NEW FEATURE \*\* English language translations of French and German abstracts now searchable. See HELP NEWS 348 for info.

File 98:General Sci Abs/Full-Text 1984-2000/Apr

(c) 2000 The HW Wilson Co.

File 342:Derwent Patents Citation Indx 1978-98/200004

(c) 2000 Derwent Info Ltd

\*File 342: File updating has resumed with the addition of delayed updates.

For information on the resumption of Alerts, see HELP NEWS 342.

File 347:JAPIO Oct 1976-1999/Nov(UPDATED 000515)

(c) 2000 JPO & JAPIO

\*File 347: Display front page images using format 19. See HELP NEWS 347 for more information

File 143:Biol. & Agric. Index 1983-2000/Apr

(c) 2000 The HW Wilson Co

File 65:Inside Conferences 1993-2000/May W3

(c) 2000 BLDSC all rts. reserv.

File 35:DISSERTATION ABSTRACTS ONLINE 1861-1999/DEC

(c) 2000 UMI

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File 94:JICST-EPlus 1985-2000/Jan W5

(c)2000 Japan Science and Tech Corp(JST)

File 148:Gale Group Trade &amp; Industry DB 1976-2000/May 25

(c)2000 The Gale Group

File 162:CAB HEALTH 1983-2000/Apr

(c) 2000 CAB INTERNATIONAL

File 340:CLAIMS(R)/US Patent 1950-00/May 16

(c) 2000 IFI/CLAIMS(r)

\*File 340: \*\*\* Incorrectly attributed foreign priorities have been removed. See HELP NEWS 340 for details.

File 545:Investext(R) 1982-2000/May 25

(c) 2000 Thomson Financial Networks

File 16:Gale Group PROMT(R) 1990-2000/May 25

(c) 2000 The Gale Group

File 77:Conference Papers Index 1973-2000/May

(c) 2000 Cambridge Sci Abs

File 158:DIOGENES(R) 1976-2000/May W2

(c) 2000 DIOGENES

File 203:AGRIS 1974-2000/Mar

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File 50:CAB Abstracts 1972-2000/May

(c) 2000 CAB International

File 344:Chinese Patents ABS Apr 1985-2000/Feb

(c) 2000 European Patent Office

File 653:US Patents Fulltext 1980-1989

(c) format only 2000 The Dialog Corp.

\*File 653: Reassignment data current through 12/06/1999 recordings.

Due to recent processing problems, the SORT command is not working.

File 442:AMA Journals 1982-2000/Apr W2

(c)2000 Amer Med Assn -FARS/DARS apply

File 370:Science 1996-1999/Jul W3

(c) 1999 AAAS

Set Items Description

--- --- -----

?ds

Set Items Description

S1 788 MEMBRAN? (5N) (PYLORI OR PYLOR OR PYLORIS OR PYLORIDIS OR -

HELICOBACTER? OR HELICOBAC?)

S2 384 RD (unique items)

S3 222 S2/1997:2000

S4 162 S2 NOT S3

S5 50 TARGET - S4

S6 112 S4 NOT S5

S7 50 TARGET - S6

S8 62 S6 NOT S7

S9 50 TARGET - S8

S10 12 S8 NOT S9

S11 12 TARGET - S10

?t s9/3,kwic/16 17 43 44 45 47

&gt;&gt;&gt;KWIC option is not available in file(s): 77

9/3,KWIC/16 (Item 16 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) format only 2000 The Dialog Corp. All rts. reserv.

02418533

Utility

Art Unit: 1641

RAPID IN VITRO TEST FOR HELICOBACTER PYLORI  
USING SALIVA

PATENT NO.: 5,420,014

ISSUED: May 30, 1995 (19950530)

INVENTOR(s): Cripps, Allan, East Maitland, AU (Australia)

Witt, Campbell, Bicton, AU (Australia)

Clancy, Robert L., New Lambton, AU (Australia)

Stiel, Daniel, East Lindfield, AU (Australia)

ASSIGNEE(s): Auspharm International Ltd. (A Non-U.S. Company

or

Corporation), New South Wales, AU (Australia)

[Assignee Code(s): 36188]

APPL. NO.: 7-876,524

FILED: April 30, 1992 (19920430)

FULL TEXT: 569 lines

...thereof.

Hence, a medical practitioner may use a nitrocellulose or other  
suitable

solid phase support membrane strip carrying immobilized H.  
pylori

antigens, such as soluble sonicate. The strip is then contacted with  
the  
mucous secretion. The...

9/3,KWIC/17 (Item 17 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) format only 2000 The Dialog Corp. All rts. reserv.

02243151

Utility

ANTIGENIC COMPOSITIONS AND THEIR USE FOR THE  
DETECTION OF HELICOBACTER

PYLORI

[ Useful to detect gastrointestinal disorder; mixture is enriched with  
at  
least one of 116, 24, 19 and lukda gramlments]

PATENT NO.: 5,262,156

ISSUED: November 16, 1993 (19931116)

INVENTOR(s): Alemohammad, Mohammad M., Mission Viejo, CA  
(California), US

(United States of America)

ASSIGNEE(s): Hycor Biomedical, Inc., (A U.S. Company or  
Corporation),

Garden Grove, CA (California), US (United States of  
America)

[Assignee Code(s): 32230]

APPL. NO.: 7-744,461

FILED: August 12, 1991 (19910812)

FULL TEXT: 461 lines

... well. In addition to cross-reactivity, studies have demonstrated a  
strain variation among the H. pylori outer membrane antigens.

As a

result, until the present invention, a mixture of H. pylori antigens  
suitable...

9/3,KWIC/43 (Item 43 from file: 349)

Art Unit: 1641

DIALOG(R)File 349:PCT Fulltext

(c) 2000 WIPO/MicroPatent. All rts. reserv.

Publication Language: English

Fulltext Word Count: 11573

00443250

HELICOBACTER PYLORI ANTIGENS AND VACCINE

COMPOSITIONS

ANTIGENES D'HELICOBACTER PYLORI ET

COMPOSITIONS DE VACCINS

Patent Applicant/Assignee:

ASTRA AKTIEBOLAG

BOLIN Ingrid

SVENNERHOLM Ann-Mari

Inventor(s):

BOLIN Ingrid

SVENNERHOLM Ann-Mari

Patent and Priority Information (Country, Number, Date):

Patent: WO 9638475 A1 19961205

Application: WO 96SE727 19960603 (PCT/WO

SE9600727)

Priority Application: SE 952007 19950601; SE 961085 19960321

Designated States: AL; AM; AT; AU; AZ; BB; BG; BR; BY; CA;

CH; CN; CZ; DE;

DK; EE; ES; FI; GB; GE; HU; IL; IS; JP; KP; KR; KZ; LK; LR;

LS; LT; LU;

LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU;

SD; SE; SG; TJ; TM;

TR; TT; UA; UG; US; UZ; VN; KE; LS; MW; SD; SZ; UG; AM;

AZ; BY; KG; KZ;

MD; RU; TJ; TM; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU;

MC; NL; PT;

SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; SN; TD; TG

Fulltext Availability:

Detailed Description

Detailed Discription

... disclosed by Evans et al. (1993) J. Bacteriol.

175, 674-683.

Monoclonal antibodies (MAbs) against membrane preparations of H.

pylori have been disclosed by B61 in et al. (1995) J. Clin. Microbiol. 33, 381-384.

One...

9/3,KWIC/44 (Item 44 from file: 349)

DIALOG(R)File 349:PCT Fulltext

(c) 2000 WIPO/MicroPatent. All rts. reserv.

00417757

HELICOBACTER PYLORI DIAGNOSTIC METHODS AND KITS

METHODES DE DIAGNOSTIC DE L'HELICOBACTER PYLORI ET NECESSAIRES

CORRESPONDANTS

Patent Applicant/Assignee:

GENELABS DIAGNOSTICS PTE LTD

Art Unit: 1641

## Inventor(s):

CHAN Lily

MOECKLI Randolph

CHIN Daria Foong Yun

## Patent and Priority Information (Country, Number, Date):

Patent: WO 9612965 A1 19960502

Application: WO 95IB1028 19951019 (PCT/WO  
IB9501028)

Priority Application: US 94326638 19941020

Designated States: AT; AU; BB; BG; BR; BY; CA; CH; CN; CZ;  
DE; DK; ES; FI;GB; HU; JP; KP; KR; KZ; LK; LU; LV; MG; NO; NZ; PL; PT;  
RO; RU; SD; SE;SK; UA; UZ; VN; AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT;  
LU; PT; SE;

BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG

Publication Language: English

Fulltext Word Count: 4773

## English Abstract

...assay involves an immunoblot for biological fluid samples and  
includes

a kit in which *Helicobacter pylori* antigen is immobilized on a  
membrane support. Also provided is a method for diagnosing  
disease

associated with *Helicobacter pylori* infection.

9/3,KWIC/45 (Item 45 from file: 349)

DIALOG(R)File 349:PCT Fulltext

(c) 2000 WIPO/MicroPatent. All rts. reserv.

00402777

HELICOBACTER PYLORI NICKEL BINDING PROTEIN  
PROTEINE D'HELICOBACTER PYLORI A LIAISON DE  
NICKEL

## Patent Applicant/Assignee:

NEW ENGLAND MEDICAL CENTER HOSPITALS INC  
TRUSTEES OF TUFTS COLLEGE

## Inventor(s):

PLAUT Andrew G

GILBERT-ROTHSTEIN Joanne V

WRIGHT Andrew

## Patent and Priority Information (Country, Number, Date):

Patent: WO 9533767 A1 19951214

Application: WO 95US5772 19950509 (PCT/WO  
US9505772)

Priority Application: US 94255457 19940608

Designated States: CA; JP; AT; BE; CH; DE; DK; ES; FR; GB; GR;  
IE; IT; LU;

MC; NL; PT; SE

Publication Language: English

Fulltext Word Count: 5867

## Fulltext Availability:

## Claims

## Claim

... infection of *H. pylori* and from uninfected control patients.

## Purified

nickel binding protein from *H. pylori* was immobilized on a  
membrane

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for Western Blot analysis (Sambrook et al., supra). Patient serum  
was  
diluted to 1:400...

9/3,KWIC/47 (Item 47 from file: 349)  
DIALOG(R)File 349:PCT Fulltext  
(c) 2000 WIPO/MicroPatent. All rts. reserv.

00366137

IMMUNOGENIC COMPOSITIONS AGAINST  
HELICOBACTER INFECTION, POLYPEPTIDES FOR  
USE IN THE COMPOSITIONS AND NUCLEIC ACID  
SEQUENCES ENCODING SAID  
POLYPEPTIDES  
COMPOSITIONS IMMUNOGENES DESTINEES A  
PROTEGER CONTRE LES INFECTIONS A  
HELICOBACTER, POLYPEPTIDES UTILISES DANS  
LESDITES COMPOSITIONS ET  
SEQUENCES D'ACIDES NUCLEIQUES CODANT LESDITS  
POLYPEPTIDES

Patent Applicant/Assignee:

INSTITUT PASTEUR

INSTITUT NATIONAL DE LA SANTE ET DE LA

RECHERCHE MEDICALE

LABIGNE Agnes

SUERBAUM Sebastien

FERRERO Richard

THIBERGE Jean-Michel

Inventor(s):

LABIGNE Agnes

SUERBAUM Sebastien

FERRERO Richard

THIBERGE Jean-Michel

Patent and Priority Information (Country, Number, Date):

Patent: WO 9426901 A1 19941124

Application: WO 94EP1625 19940519 (PCT/WO  
EP9401625)

Priority Application: EP 93401309 19930519; WO 93EP3259  
19931119

Designated States: AU; CA; JP; KR; US; AT; BE; CH; DE; DK; ES;  
FR; GB; GR;  
IE; IT; LU; MC; NL; PT; SE

Publication Language: English

Fulltext Word Count: 27778

Fulltext Availability:

Detailed Description

Detailed Discription

... following extracts:

1) standard protein markers ; 2) H. felis UreA-MBP 3) MBP ; 4) H.

pylori

UreA-MBP. The membranes were reacted with polyclonal rabbit  
antisera

(diluted 1 :

5000) raised against MBP-fused H. pylori...

?t s/9/22 34

9/9/22 (Item 22 from file: 155)

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DIALOG(R)File 155:MEDLINE(R)

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08650575 96186491

Surface localization of *Helicobacter pylori* urease and a heat shock

protein homolog requires bacterial autolysis.

Phadnis SH; Parlow MH; Levy M; Ilver D; Caulkins CM; Connors JB; Dunn BE

Department of Pathology, Medical College of Wisconsin, Milwaukee, USA.

Infection and immunity (UNITED STATES) Mar 1996, 64 (3) p905-12,

ISSN 0019-9567 Journal Code: GO7

Contract/Grant No.: CA-67527, CA, NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9609

Subfile: INDEX MEDICUS

*Helicobacter pylori* is a gram-negative bacterium which causes chronic gastritis and is associated with peptic ulcer disease, gastric carcinoma, and gastric lymphoma. The bacterium is characterized by potent urease activity, thought to be located on the outer membrane, which is essential for survival at low pH. The purpose of the present study was to investigate mechanisms whereby urease and HspB, a GroEL homolog, become surface

associated in vitro. Urease, HspB, and catalase were located almost

exclusively within the cytoplasm in fresh log-phase cultures assessed by

cryo- immunoelectron microscopy. In contrast, significant amounts of

surface-associated antigen were observed in older or subcultured

preparations concomitantly with the appearance of significant amounts of

extracellular antigen, amorphous debris, and membrane fragments.

By use of

a variety of biochemical methods, a significant fraction of urease and HspB

was associated with the outer membrane in subcultured preparations of *H.*

*pylori*. Taken together, these results strongly suggest that *H.*

*pylori*

cells undergo spontaneous autolysis during culture and that urease and HspB

become surface associated only concomitant with bacterial autolysis. By

comparing enzyme sensitivity to fluoroamide (a potent, poorly diffusible

urease inhibitor) in whole cells with that in deliberately lysed cells, we

show that both extracellular and intracellular urease molecules are active

enzymatically. Autolysis of *H. pylori* is an important phenomenon to



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recognize since it likely exerts significant effects on the behavior of H.

pylori. Furthermore, the surface properties of H. pylori must be unique in

promoting adsorption of cytoplasmic proteins.

Tags: Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: \*Bacterial Proteins--Analysis--AN;

\*Bacteriolysis;

\*Heat-Shock Proteins--Analysis--AN; \*Helicobacter

pylori--Chemistry--CH;

\*Urease--Analysis--AN; Antigens, Bacterial--Analysis--AN;

Helicobacter

pylori--Enzymology--EN; Urease--Antagonists and Inhibitors--AI

CAS Registry No.: 0 (Antigens, Bacterial); 0 (Bacterial Proteins); 0

(Heat-Shock Proteins)

Enzyme No.: EC 3.5.1.5 (Urease)

9/9/34 (Item 34 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

05496338 89124531

Serum IgG antibody to the outer membrane proteins of

Campylobacter

pylori in children with gastroduodenal disease.

Czinn S; Carr H; Shetler L; Aronoff S

Department of Pediatrics, Case Western Reserve University,

Cleveland.

Journal of infectious diseases (UNITED STATES) Mar 1989.

159 (3)

p586-9. ISSN 0022-1899 Journal Code: III3

Contract/Grant No.: AI25818. AI. NIAID

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 8905

Subfile: AIM; INDEX MEDICUS

Tags: Human; Support, U.S. Gov't, P.H.S.

Descriptors: \*Antibodies, Bacterial--Immunology--IM; \*Bacterial Outer

Membrane Proteins--Immunology--IM;

\*Campylobacter--Immunology--IM;

\*Campylobacter Infections--Immunology--IM; \*Gastrointestinal Diseases

--Immunology--IM; Adolescence; Antigens,

Bacterial--Immunology--IM;

Blotting, Western; Child; Child, Preschool; Gastrointestinal Diseases

--Microbiology--MI; IgG--Immunology--IM; Molecular Weight

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antigens,

Bacterial);

0 (Bacterial Outer Membrane Proteins)

?t s11/9/4 12

11/9/4 (Item 4 from file: 73)

DIALOG(R)File 73:EMBASE

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04116222 EMBASE No: 1989285268

Campylobacter pylori releases membrane-associated and soluble

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antigens during infection

Brennan D.P.; Keeling P.W.N.

Trinity College Dublin Medical School, St. James's Hospital,

Dublin 8

Ireland

EDITOR(S): Megraud F.; Lamouliatte H.

BOOK PUBLISHER: Elsevier Science Publishers B.V.

Gastrointestinal pathology and Campylobacter pylori: proceedings  
of the

first meeting of the European Campylobacter Pylori Study Group.

ICS847

1989, (207-211)

ISBN: 0444811591

CONFERENCE TITLE: The first meeting of the European

Campylobacter Study

Group

CONFERENCE LOCATION: Bordeaux, FRANCE

CONFERENCE DATE: 07 OCT 1988 to 08 OCT 1988

DOCUMENT TYPE: Proceeding

LANGUAGE: ENGLISH

DRUG DESCRIPTORS:

\*membrane antigen

MEDICAL DESCRIPTORS:

\*helicobacter pylori; \*stomach mucosa

human cell; nonhuman; human

SECTION HEADINGS:

004 Microbiology: Bacteriology, Mycology, Parasitology and  
Virology

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

08540347 95197292

Isolation and characterization of a family of porin proteins from  
Helicobacter pylori.

Exner MM; Doig P; Trust TJ; Hancock RE

Department of Microbiology and Immunology, University of  
British

Columbia, Vancouver, Canada.

Infection and immunity (UNITED STATES) Apr 1995, 63 (4)  
p1567-72.

ISSN 0019-9567 Journal Code: GO7

Contract/Grant No.: R01AI29927-01A2, AI, NIAID

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9506

Subfile: INDEX MEDICUS

Two-dimensional gel electrophoresis was used to identify  
heat-modifiable

outer membrane proteins, which were candidates for porins,  
from

Helicobacter pylori membrane preparations. Four such proteins  
with

apparent molecular masses of 48, 49, 50, and 67 kDa were isolated.

The four

proteins copurified together after selective detergent  
solubilizations

followed by anion-exchange chromatography, and each protein was  
ultimately

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purified to homogeneity by gel purification. These proteins were then tested for pore-forming ability with a planar lipid bilayer model membrane system. All four proteins appeared to be present as monomers, and they formed pores with low single-channel conductances in 1.0 M KCl of 0.36, 0.36, 0.30, and 0.25 nS, respectively, for the 48-, 49-, 50-, and 67-kDa proteins which we propose to designate HopA, HopB, HopC, and HopD.

N-terminal amino acid sequence analyses showed a high degree of homology among all four proteins, and it appears that these proteins constitute a family of related porins in *H. pylori*.

Tags: Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: \*Helicobacter pylori--Chemistry--CH;

\*Porins--Isolation and

Purification--IP; Amino Acid Sequence; Electric Conductivity;

Electrophoresis, Gel, Two-Dimensional; Heat; Helicobacter pylori

--Physiology--PH; Ion Channels--Chemistry--CH; Ion

Channels--Isolation and

Purification--IP; Molecular Sequence Data; Molecular Weight; Multigene

Family: Porins--Chemistry--CH; Sequence Alignment; Sequence

Homology, Amino

Acid

CAS Registry No.: 0 (Ion Channels); 0 (Porins)

Gene Symbol: hopB; hopC; hopD; hopA

?logoff hold

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Identification of surface-exposed outer membrane antigens of *Helicobacter pylori*.

Doig P; Trust TJ

Department of Biochemistry and Microbiology, University of Victoria,  
British Columbia, Canada.

Infection and immunity (UNITED STATES) Oct 1994. 62 (10)  
p4526-33,

ISSN 0019-9567 Journal Code: GO7

Contract/Grant No.: 1R01AI29927-01A2, AI, NIAID

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9501

Subfile: INDEX MEDICUS

Despite the potential significance of surface-localized antigens in the colonization by and disease processes of *Helicobacter pylori*, few such components have been unequivocally identified and/or characterized. To further investigate the surface of this bacterium, monoclonal antibodies (MAbs) to a sarcosine-insoluble outer membrane fraction prepared from *H. pylori* NCTC 11637 were raised. MAbs were selected on the basis of their surface reactivity to whole cells by enzyme-linked immunosorbent assay, immunofluorescence, and immunoelectron microscopy. By use of this selection

protocol, 14 surface-reactive MAbs were chosen. These MAbs were used to identify six protein antigens (molecular masses, 80, 60, 51, 50, 48, and 31 kDa), all of which were localized within or associated with the outer membrane. Two of the MAbs recognized the core region of lipopolysaccharide (LPS). Only these two anti-LPS MAbs also recognized the flagellar sheath, indicating a structural difference between the sheath and outer membrane. Three of the protein antigens (80, 60, and 51 kDa) were strain specific, while the other three antigens were present in other strains of *H. pylori*. Both the 51- and 48-kDa antigens were heat modifiable and likely are porins. A conserved 31-kDa protein may represent another species of porin. A method involving sucrose density ultracentrifugation and Triton extraction that allows the preparation of *H. pylori* outer membranes with minimal inner membrane contamination is described. Sodium dodecyl sulfate-polyacrylamide gel electrophoresis analysis showed that the protein content of the *H. pylori* outer membrane is similar structurally to those of other species of *Helicobacter* but markedly different from those of

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taxonomically related *Campylobacter* spp. and *Escherichia coli*. *H. pylori*

also appeared to lack peptidoglycan-associated proteins.

Tags: Animal; Support. Non-U.S. Gov't; Support. U.S. Gov't.  
P.H.S.

Descriptors: \*Antigens, Bacterial--Analysis--AN; \*Bacterial  
Outer

Membrane Proteins--Analysis--AN; \**Helicobacter pylori*--Immunology--IM;

Antibodies, Monoclonal--Immunology--IM; Antigens,  
Surface--Analysis--AN;

Mice; Mice, Inbred BALB C; Molecular Weight

CAS Registry No.: 0 (Antibodies, Monoclonal); 0 (Antigens,  
Bacterial)

; 0 (Antigens, Surface); 0 (Bacterial Outer Membrane Proteins)

5/9/5 (Item 5 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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08937617 97044643

Bactericidal effect of plaunotol, a cytoprotective antiulcer agent,  
against *Helicobacter pylori*.

Koga P; Kawada H; Utsui Y; Domon H; Ishii C; Yasuda H

Biological Research Laboratories, Sankyo Co., Ltd, Tokyo, Japan.

Journal of antimicrobial chemotherapy (ENGLAND) Sep 1996.

38 (3)

p387-97. ISSN 0305-7453 Journal Code: HD7

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9705

Subfile: INDEX MEDICUS

In order to investigate the bactericidal effect of plaunotol, an oily  
antiulcer agent, against *Helicobacter pylori*, comparative studies  
were

conducted using its derivatives, M-4, M-5, and M-6, whose  
hydrophobicity

decreased in the order of plaunotol > M-6 > M-5 > M-4 by  
log P

determination. Plaunotol rapidly reduced the viability of *H. pylori*  
in

vitro, and cell death was associated with cell lysis. In addition,  
plaunotol showed eightfold stronger bactericidal activity against *H.*  
*pylori*

than M-6 and M-5, while the compound with the lowest  
hydrophobicity, M-4,

showed no bactericidal activity. The bactericidal activities of  
plaunotol

and its derivatives were related to the hydrophobicity of these  
compounds.

To investigate a possible interaction between these compounds and  
the cell

membrane of *H. pylori*, their effects on liposomal membranes  
prepared

from phosphatidylethanolamine and cardiolipin, which are known  
to be

present in the membrane of *H. pylori*, were determined by  
detection of

glucose release from the liposomes. Plaunotol showed eight-fold  
higher

Art Unit: 1641

activity than M-6 and M-5, while M-4 showed no activity. The effects of plaunotol and its derivatives on liposomal membrane were therefore related to their bactericidal activities. In addition, it was confirmed that the bactericidal effect of plaunotol against *H. pylori* was neutralized by the liposomal membrane, and that plaunotol led to an increase in permeability of the membrane, as evidenced by measurement of the leakage of 260 nm

absorbing-material from *H. pylori*. These results suggest that the

bactericidal effect of plaunotol against *H. pylori* is due to the interaction between this compound and the bacterial cell membrane.

Tags: Comparative Study

Descriptors: \*Fatty Alcohols--Pharmacology--PD; \*Helicobacter pylori

--Drug Effects--DE; \*Helicobacter pylori--Metabolism--ME;

Anti-Infective

Agents--Pharmacology--PD; Anti-Ulcer Agents--Pharmacology--PD; Dicarboxylic

Acids--Chemistry--CH; Dicarboxylic Acids--Pharmacology--PD;

Fatty Acids,

Unsaturated--Chemistry--CH; Fatty Acids,

Unsaturated--Pharmacology--PD;

Fatty Alcohols--Chemistry--CH; Glucose--Metabolism--ME;

Liposomes

--Metabolism--ME; Liposomes--Pharmacology--PD; Microbial

Sensitivity Tests

: Spectrophotometry; Structure-Activity Relationship

CAS Registry No.: 0 (Anti-Infective Agents); 0 (Anti-Ulcer Agents); 0

(Dicarboxylic Acids); 0 (Fatty Acids, Unsaturated); 0 (Fatty Alcohols)

: 0 (Liposomes); 50-99-7 (Glucose); 64218-02-6

(plaunotol);

65811-39-4 (plaunotol M-6); 95310-55-7 (plaunotol M-4);

95310-63-7

(plaunotol M-5)

5/9/6 (Item 6 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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08406501 96009781

Iron-repressible outer membrane proteins of *Helicobacter pylori*

involved in heme uptake.

Worst DJ; Otto BR; de Graaff J

Department of Medical Microbiology, Faculty of Medicine, Vrije

Universiteit, Amsterdam, The Netherlands.

Infection and immunity (UNITED STATES) Oct 1995, 63 (10) p4161-5.

ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9601

Subfile: INDEX MEDICUS

Art Unit: 1641

*Helicobacter pylori* is known to be a causative agent of gastritis and peptic ulcer disease in humans. The acquisition of iron from the human host may contribute greatly to the virulence of this organism. To study this, *H. pylori* was cultured under iron-restrictive conditions to induce synthesis of possible iron-regulated outer membrane proteins. This was achieved by the addition of 20% (vol/vol) heat-inactivated newborn calf serum, which contains iron-binding proteins like transferrin and albumin, and no free iron. The newborn calf serum was able to bind free ionic iron in brucella broth culture medium. Electrophoretic analysis of outer membrane preparations from *H. pylori* cultured under conditions of iron restriction showed several proteins to be present at elevated levels. These appeared to be iron-repressible outer membrane proteins (IROMPs). In addition, IROMPs with molecular sizes of 77, 50, and 48 kDa were isolated by use of hemin-agarose affinity chromatography. These three heme-binding IROMPs might be involved in the uptake of heme from the host and might therefore be important virulence factors of *H. pylori*.

Tags: Animal

Descriptors: Bacterial Outer Membrane  
 Proteins--Physiology--PH; \*  
*Helicobacter pylori* --Metabolism--ME;  
 \*Heme--Metabolism--ME; \*Iron  
 --Metabolism--ME; Bacterial Outer Membrane  
 Proteins--Analysis--AN;  
 Culture Media; *Helicobacter pylori*--Growth and  
 Development--GD;  
*Helicobacter pylori*--Pathogenicity--PY; Horses  
 CAS Registry No.: 0 (iron-regulated protein, bacterial); 0  
 (Bacterial  
 Outer Membrane Proteins); 0 (Culture Media); 14875-96-8  
 (Heme);  
 7439-89-6 (Iron)

5/9/10 (Item 10 from file: 155)  
 DIALOG(R)File 155:MEDLINE(R)  
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08889065 97047972  
 Sequencing, expression, and genetic characterization of the  
*Helicobacter pylori* *ftsH* gene encoding a protein homologous to members of a novel putative ATPase family.  
 Ge Z; Taylor DE  
 Department of Medical Microbiology and Immunology, University of Alberta,  
 Edmonton, Canada.

Art Unit: 1641

Journal of bacteriology (UNITED STATES) Nov 1996. 178 (21)

p6151-7.

ISSN 0021-9193 Journal Code: HH3

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9703

Subfile: INDEX MEDICUS

In this study, we isolated and sequenced a *Helicobacter pylori* gene,

designated *ftsH*, coding for a 632-amino-acid protein which displayed

striking similarity throughout its full length to *FtsH* proteins identified

in *Escherichia coli*, *Lactococcus lactis*, and *Bacillus subtilis*. *H. pylori*

*FtsH* also possessed approximately 200-amino-acid region containing a

putative ATPase module which is conserved among members of the AAA protein

family (AAA, ATPase associated with diverse cellular activities).

The *H.*

*pylori ftsH* product was overexpressed in *E. coli* and reacted immunologically with an anti-*E. coli FtsH* serum (T. Tomoyasu, K. Yamanaka,

K. Murata, T. Suzuki, P. Bouloc, A. Kato, H. Niki, S. Hiraga, and T. Ogura,

*J. Bacteriol.* 175:1352-1357, 1993). *FtsH* was also shown to be present in

the membrane fraction of *H. pylori*, suggesting that it is membrane

bound. Disruption of the *ftsH* gene led to the loss of viability of *H.*

*pylori*, demonstrating that this gene is essential for cell growth.

Overproduction of both *H. pylori FtsH* and *E. coli FtsH* together

tremendously reduced the growth rate of the *E. coli* host cells, whereas the

growth of the *E. coli* cells carrying the wild-type *E. coli ftsH* operon on

the chromosome was not significantly affected by overproduction of *H.*

*pylori FtsH* itself. This result suggests that the abnormal growth of cells

results from interaction between *H. pylori FtsH* and *E. coli FtsH*.

Tags: Support, Non-U.S. Gov't

Descriptors: Adenosinetriphosphatase--Genetics--GE; \*DNA, Bacterial

--Analysis--AN; \* *Helicobacter pylori* --Enzymology--EN; \* Membrane

Proteins--Genetics--GE; Amino Acid Sequence; Base Sequence; *Escherichia*

*coli*--Growth and Development--GD; *Escherichia*

*coli*--Metabolism--ME; Gene

Expression; *Helicobacter pylori*--Growth and Development--GD; *Helicobacter*

*pylori*--Genetics--GE; Molecular Sequence Data; Sequence

Homology, Amino

Acid

Molecular Sequence Databank No.: GENBANK/U59452

CAS Registry No.: 0 (DNA, Bacterial); 0 (*FtsH* protein, *Helicobacter*);



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0 (Membrane Proteins)

Enzyme No.: EC 3.6.1.3 (Adenosinetriphosphatase)

5/9/26 (Item 26 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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08393091 95309999

Expression of adhesion molecules on human granulocytes after stimulation

with *Helicobacter pylori* membrane proteins: comparison with membrane

proteins from other bacteria.

Enders G; Brooks W; von Jan N; Lehn N; Bayerdorffer E; Hatz R

Institute for Surgical Research, Klinikum Grosshadern,

Ludwig-Maximilians

University, TU Munich, Germany.

Infection and immunity (UNITED STATES) Jul 1995, 63 (7) p2473-7,

ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9509

Subfile: INDEX MEDICUS

Type B gastritis in its active form is characterized by a dense infiltration of the lamina propria with granulocytes. Since the bacterium *Helicobacter pylori* does not invade the epithelial barrier, a signaling

pathway chemoattractive for granulocytes must exist across this mucosal

boarder. One possible mechanism tested was whether granulocytes are

directly activated by water-soluble membrane proteins (WSP) from *H.*

*pylori*. These findings were compared with the effects of WSP from other

bacteria (*Helicobacter felis*, *Campylobacter jejuni*, *Escherichia coli*, and

*Staphylococcus aureus*). A unique activation pattern by *H. pylori* WSP was

found. Like all other WSP tested, they induced an upregulation of CD11b but

had no influence on CD11c and, most strikingly, CD62L expression. In

contrast, *E. coli* WSP, e.g., not only induce a strong CD11b and CD11c

expression but also lead to a loss in surface CD62L. The lack of CD62L

shedding conserves rolling of granulocytes along the endothelium, creating

a favorable precondition for granulocytes to stick more readily to

activated endothelium after *H. pylori* stimulation via

CD11b-CD54

receptor-counterreceptor interaction. This may explain why *H. pylori*

infection is a very strong stimulus for granulocyte infiltration. The

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active fraction for the induction of CD11b on granulocytes is a heat- and

protease-sensitive protein with a molecular mass between 30 and 100 kDa.

One activation step involved may be the binding of WSP to CD15 determinants

on granulocytes with subsequent induction of CD11b.

Tags: Human; In Vitro; Support, Non-U.S. Gov't

Descriptors: \*Antigen p150,95--Metabolism--ME; \*Bacterial Outer Membrane

Proteins--Pharmacology--PD; \*Cell Adhesion

Molecules--Metabolism--ME;

\*Granulocytes--Cytology--CY; \*Helicobacter pylori--Pathogenicity--PY;

\*Macrophage-1 Antigen--Metabolism--ME; Antigens,

Bacterial--Immunology--IM;

Antigens, CD15--Metabolism--ME; Bacterial

Proteins--Immunology--IM;

Bacterial Proteins--Pharmacology--PD; Cell Adhesion--Drug

Effects--DE

CAS Registry No.: 0 (Antigen p150,95); 0 (Antigens,

Bacterial); 0

(Antigens, CD15); 0 (Bacterial Outer Membrane Proteins); 0

(Bacterial

Proteins); 0 (Cell Adhesion Molecules); 0 (Macrophage-1

Antigen);

126880-86-2 (L-Selectin)

5/9/32 (Item 32 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

09051729 97023927

Human serum antibody response against iron-repressible outer membrane

proteins of Helicobacter pylori.

Worst DJ; Sparrius M; Kuipers EJ; Kusters JG; de Graaff J

Department of Medical Microbiology, Vrije Universiteit,

Amsterdam, The

Netherlands. dj.worst.MM@med.vu.nl

FEMS microbiology letters (NETHERLANDS) Oct 15 1996,

144 (1) p29-32,

ISSN 0378-1097 Journal Code: FML

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9703

Subfile: INDEX MEDICUS

In Helicobacter pylori, in vitro iron limitation induces the expression

of several iron repressible outer membrane proteins (IROMPs),

which are not

expressed under normal growth conditions. To substantiate their

proposed

role in virulence of H. pylori, we determined whether these IROMPs

are also

expressed in vivo. Therefore, we tested whether sera of patients

with H.

pylori infection contained antibodies against IROMPs. All sera from

20 H.

pylori positive patients showed a clear immune response against a

77 kDa

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heme-binding IROMP in an immunoblot assay. Antibody responses against the other IROMPs were also found, but with lower frequencies. Serum samples from 18 patients negative for *H. pylori* infection did not show any immunoreactivity with IROMPs. These results indicate that the IROMPs of *H. pylori* are immunogenic and are expressed in vivo.

Tags: Human

Descriptors: Antibodies, Bacterial--Blood--BL; \*Bacterial Outer Membrane

Proteins--Immunology--IM; \* Helicobacter

Infections--Immunology--IM;

Dyspepsia--Immunology--IM; Dyspepsia--Microbiology--MI;

Helicobacter

pylori--Immunology--IM; Helicobacter pylori--Pathogenicity--PY

CAS Registry No.: 0 (iron-regulated protein, bacterial); 0 (Antibodies, Bacterial); 0 (Bacterial Outer Membrane Proteins)

5/9/34 (Item 34 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

08270334 95229929

Identification of *Helicobacter pylori* by immunological dot blot method

based on reaction of a species-specific monoclonal antibody with a surface-exposed protein.

Bolin I; Lonroth H; Svennerholm AM

Department of Medical Microbiology and Immunology, Goteborg University, Sweden.

Journal of clinical microbiology (UNITED STATES) Feb 1995, 33 (2)

p381-4, ISSN 0095-1137 Journal Code: HSH

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9507

Subfile: INDEX MEDICUS

Monoclonal antibodies (MAbs) against membrane preparations of

*Helicobacter pylori* were produced. One MAb was found to be specific for

*H. pylori*, because it did not react with a number of other bacterial

species, including *Helicobacter felis* and *Campylobacter jejuni*.

This MAb

reacted with a 30-kDa protein found in outer membrane preparations of *H.*

*pylori*. The protein was also detected on the cell surface on intact

bacteria when analyzed by immunoelectron microscopy. To facilitate the

identification of *H. pylori* isolates after culturing of biopsies, an immunodot blot assay based on the reaction of this MAb was developed. This

assay was found to be highly specific for *H. pylori*. Sixty-six clinical

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isolates typed as *H. pylori* by conventional biochemical tests were found to be positive, whereas no other bacterial species tested gave a positive result. By this method, reliable and rapid identification of *H. pylori* could be accomplished.

Tags: Human; Support, Non-U.S. Gov't

Descriptors: \*Antibodies, Monoclonal; \*Bacterial Proteins--Immunology--IM; \**Helicobacter pylori*--Immunology--IM; \**Helicobacter pylori*--Isolation and Purification--IP; \*Immunoblotting--Methods--MT; Antibodies, Viral;

Antibody Specificity; Antigens, Bacterial; Antigens, Surface; Evaluation

Studies; *Helicobacter* Infections--Diagnosis--DI; *Helicobacter* Infections--Microbiology--MI; Immunoblotting--Statistical and Numerical Data--SN;

Membrane Proteins--Immunology--IM; Microscopy, Immunoelectron; Sensitivity and Specificity; Species Specificity

CAS Registry No.: 0 (Antibodies, Monoclonal); 0 (Antibodies, Viral); 0 (Antigens, Bacterial); 0 (Antigens, Surface); 0 (Bacterial Proteins); 0 (Membrane Proteins)

?t s5/3.kwic/11

>> KWIC option is not available in file(s): 77

5/3.KWIC/11 (Item 11 from file: 654)

DIALOG(R)File 654:US Pat.Full.

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02121323

Reissue

PROCESS FOR PREPARATION OF HIGH MOLECULAR WEIGHT CELL-ASSOCIATED PROTEIN OF *CAMPYLOBACTER PYLORI* AND USE FOR SEROLOGICAL DETECTION OF *CAMPYLOBACTER PYLORI* INFECTION

[Purified antigens]

PATENT NO.: RE34,101

ISSUED: October 13, 1992 (19921013)

INVENTOR(s): Evans, Dolores G., Houston, TX (Texas), US  
(United States of

America)

Evans, Doyle J., Houston, TX (Texas), US (United States of  
America)

Graham, David Y., Houston, TX (Texas), US (United States  
of

America)

ASSIGNEE(s): Baylor College of Medicine, (A U.S. Company or  
Corporation ),

Houston, TX (Texas), US (United States of America)

[Assignee Code(s): 6345]

APPL. NO.: 7-671,566

FILED: March 19, 1991 (19910319)

Reissue (first reissue) of patent no.: 4,882,271, issued: November  
21,

Art Unit: 1641

1989 (19891121), serial no.: 7-166.138, filed: March 10, 1988  
(19880310)

(italic start) The work herein was supported by grants from the  
United  
States Government. (italic end)

FULL TEXT: 572 lines

...associated with cross-reactivity, investigators have extensively  
studied  
the acid extractable surface proteins and outer membrane proteins  
of C.

pylori . Newall, D. G., Journal of General Microbiology  
133:163-170

(1987); and Perez-Perez, G...

...soluble in PBS and Tris-chloride buffers;

being derived from the outer surface of the membrane of  
Campylobacter

pylori ; and

being solubilized from the outer surface of the membrane  
with

n-octyl-glucoside.

2...

...soluble in PBS and tris-chloride buffers:

being derived from the outer surface of the membrane of  
Campylobacter

pylori ; and

being capable of being solubilized from the outer surface of the  
membrane

with n...

?t s7/9/29 31 34

7/9/29 (Item 29 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

08724304 96236218

The respiratory chain of Helicobacter pylori: identification of  
cytochromes and the effects of oxygen on cytochrome and  
menaquinone levels.

Marcelli SW; Chang HT; Chapman T; Chalk PA; Miles RJ; Poole  
RK

Division of Life Sciences, King's College London, UK.

FEMS microbiology letters (NETHERLANDS) Apr 15 1996,  
138 (1) p59-64,

ISSN 0378-1097 Journal Code: FML

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9610

Subfile: INDEX MEDICUS

The quinone and cytochrome components of the respiratory chain  
of the

microaerophilic bacterium Helicobacter pylori have been  
investigated. The

major isoprenoid quinone was menaquinone-6, with traces of  
menaquinone-4;

no methyl-substituted or unusual menaquinone species were found.

Cell yield

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was highest after growth at 10% (v/v) oxygen and menaquinone levels (per dry cell mass) were maximal at 5-10% (v/v) oxygen. *Helicobacter pylori* cells and membranes contained b- and c-type cytochromes, but not terminal oxidases of the a- or d-types, as judged by reduced minus oxidised difference spectra. Spectra consistent with the presence of a CO-binding terminal oxidase of the cytochrome b- or o-type were obtained. The soluble fraction from disrupted cells also contained cytochrome c. There were no significant qualitative differences in the cytochrome complements of cells grown at oxygen concentrations in the range 2-15% (v/v) but putative oxidases were highest in cells grown at 5-10% (v/v) oxygen.

Tags: Support, Non-U.S. Gov't

Descriptors: \*Cytochromes--Metabolism--ME; \**Helicobacter pylori*

--Metabolism--ME; \*Vitamin K--Metabolism--ME; *Helicobacter pylori*--Drug

Effects--DE; Hemeproteins--Isolation and Purification--IP; Hemeproteins

--Metabolism--ME; Oxygen--Pharmacology--PD; Oxygen Consumption; Quinones

--Isolation and Purification--IP; Quinones--Metabolism--ME

CAS Registry No.: 0 (Cytochromes); 0 (Hemeproteins); 0 (Quinones);

12001-79-5 (Vitamin K); 7782-44-7 (Oxygen)

7/9/31 (Item 31 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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08407292 96032377

Isolation and characterization of a conserved porin protein from

*Helicobacter pylori*.

Doig P; Exner MM; Hancock RE; Trust TJ

Canadian Bacterial Diseases Network, University of Victoria, British

Columbia, Canada.

Journal of bacteriology (UNITED STATES) Oct 1995; 177 (19) p5447-52,

ISSN 0021-9193 Journal Code: HH3

Contract/Grant No.: RO1A129927-01A2

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9601

Subfile: INDEX MEDICUS

*Helicobacter pylori* is a causative agent of gastritis in humans and is

correlated with gastric ulcer formation. Infections with this bacterium

have proven difficult to treat with antimicrobial agents. To better

understand how this bacterium transports compounds such as antimicrobial

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agents across its outer membrane, identification of porin proteins is important. We have recently identified a family of *H. pylori* porins (HopA to HopD) (M. M. Exner, P. Doig, T. J. Trust, and R. E. W. Hancock, Infect. Immun. 63:1567-1572, 1995). Here, we report on an unrelated porin species (HopE) from this bacterium. This protein had a apparent molecular mass of 31 kDa and was seen to form 50- and 90-kDa aggregates that were designated putative dimeric and trimeric forms, respectively. The protein was purified to homogeneity and, with a model planar lipid membrane system, was shown to act as a nonselective pore with a single channel conductance in 1.0 M KCl of 1.5 nS, similarly to other bacterial nonspecific porins. An internal peptide sequence of HopE shared homology with the P2 porin of *Haemophilus influenzae*. HopE was also shown to be antigenic in vivo as assessed by sera taken from *H. pylori*-infected individuals and was immunologically conserved with both patient sera and specific monoclonal antibodies. From these data, it appears that HopE is a major nonselective porin of *H. pylori*. The implications of these findings are discussed.

Tags: Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: \**Helicobacter pylori*--Chemistry--CH;

\*Porins--Chemistry--CH

: Amino Acid Sequence; Antibodies, Bacterial; Antibodies, Monoclonal;

Cross-Linking Reagents; Electric Conductivity; *Helicobacter pylori*

--Immunology--IM; Lipid Bilayers; Membrane Potentials;

Molecular Sequence

Data; Molecular Weight; Peptide Fragments--Chemistry--CH;

Porins

--Immunology--IM; Porins--Isolation and Purification--IP; Sequence

Analysis; Sequence Homology, Amino Acid; Succinimides

CAS Registry No.: 0 (Antibodies, Bacterial); 0

(Antibodies,

Monoclonal); 0 (Cross-Linking Reagents); 0 (Lipid Bilayers);

0

(Peptide Fragments); 0 (Porins); 0 (Succinimides);

57757-57-0

(dithiobis(succinimidylpropionate))

7/9/34 (Item 34 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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08269152 95227356

Identification of a 29 kDa flagellar sheath protein in *Helicobacter*

Art Unit: 1641

pylori using a murine monoclonal antibody.

Luke CJ; Penn CW

School of Biological Sciences, University of Birmingham, UK.

Microbiology (ENGLAND) Mar 1995. 141 ( Pt 3) p597-604.

ISSN 1350-0872

Journal Code: BXW

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 9507

Subfile: INDEX MEDICUS

The membrane -like flagellar sheath of *Helicobacter pylori* is of

unknown function and little is known of its composition. A

murine

monoclonal antibody to *H. pylori*, designated GF6, which reacts

by

immunoblot with a polypeptide with an apparent molecular mass of

29 kDa was

shown by immunogold-electron microscopy to label specifically the

flagellar

sheath structure. The antigen was detected by immunoblot using

the

monoclonal antibody in all 11 strains, of diverse geographic origin,

so far

tested. The antibody also reacted weakly with polypeptides with

apparent

molecular masses of 65 kDa in *Vibrio cholerae* and *Vibrio*

parahaemolyticus.

The antigen was shown by one- and two-dimensional electrophoretic

analysis

and immunoblotting to be distinct from the abundant urease subunit

UreA, of

similar molecular mass. Identification of this flagellar sheath

polypeptide

will facilitate investigation of the structure and function of the

flagellar sheath of this important gastric pathogen.

Tags: Animal; Support, Non-U.S. Gov't

Descriptors: \*Bacterial Proteins--Chemistry--CH;

\*Flagella--Chemistry--CH

; \*Helicobacter pylori--Chemistry--CH; Antibodies, Monoclonal;

Antigens.

Bacterial--Chemistry--CH; Bacterial Proteins--Immunology--IM;

Flagella

--Immunology--IM; Flagella--Ultrastructure--UL; Helicobacter

pylori

--Immunology--IM; Helicobacter pylori--Ultrastructure--UL;

Mice;

Microscopy, Immunoelectron; Molecular Weight;

Urease--Immunology--IM

CAS Registry No.: 0 (Antibodies, Monoclonal); 0 (Antigens,

Bacterial)

; 0 (Bacterial Proteins)

Enzyme No.: EC 3.5.1.5 (Urease)

?t s9/9/6

9/9/6 (Item 6 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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06432478 BIOSIS NO.: 000037004489

OUTER MEMBRANE PROTEIN CHARACTERIZATION OF

CAMPYLOBACTER- PYLORI STRAINS

CAUSING PEPTIC ULCERS



Art Unit: 1641

AUTHOR: CZINN S J; TIDWELL J E

Microorganisms

AUTHOR ADDRESS: CASE WESTERN RESERVE UNIV., SCH.

Bacteria

MED., RAINBOW BABIES AND

Animals

CHILD. HOSP., DEP. PEDIATR., CLEVELAND, OHIO.

Chordates

JOURNAL: JOINT MEETING OF THE AMERICAN

Vertebrates

PEDIATRIC SOCIETY AND THE SOCIETY

Mammals

FOR PEDIATRIC RESEARCH, WASHINGTON, D.C., USA.

Primates

MAY 1-4, 1989. PEDIATR RES

Humans

25 (4 PART 2). 1989. 110A.

CODEN: PEREB

DOCUMENT TYPE: Meeting

RECORD TYPE: Citation

LANGUAGE: ENGLISH

DESCRIPTORS: ABSTRACT CHILDREN BIOTYPING

GASTRITIS

CONCEPT CODES:

10508 Biophysics-Membrane Phenomena

14006 Digestive System-Pathology

25000 Pediatrics

31000 Physiology and Biochemistry of Bacteria

36002 Medical and Clinical Microbiology-Bacteriology

00520 General Biology-Symposia, Transactions and Proceedings

of

Conferences, Congresses, Review Annuals

10064 Biochemical Studies-Proteins, Peptides and Amino Acids

12508 Pathology, General and Miscellaneous-Inflammation and

Inflammatory Disease

BIOSYSTEMATIC CODES:

04610 Spirillaceae (1979- )

86215 Hominidae

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):